

STUDY GUIDE

Aerospace: The Flight of Discovery Chapter 5

Pre-Wright Brothers

1. The **first serious thoughts about flight** were directed toward lighter-than-air flight rather than rocket power, steam-powered aircraft, or heavier-than-air flight.
2. France was the first country to form an air arm to its Army and use balloons for reconnaissance as early as 1793.
3. The Civil War was the war in which the United States first used balloons for military purposes.
4. The first rigid airship was built and flown by **Ferdinand von Zeppelin**.
5. **Leonardo da Vinci** was the first person to conduct scientific experiments in the field of aviation.
6. **Etienne and Joseph Montgolfier** made lighter-than-air aviation possible.

Wright Brothers to World War II

7. In 1911, **Harriet Quimby** became the first woman in the US to receive a pilot's certificate.
8. **Charles Lindbergh**, an American, was the first person to fly across the Atlantic Ocean nonstop and became the leading promoter of civil aviation.
9. General **Billy Mitchell** was a strong advocate for military airpower and supported using the airplane for strategic warfare.
10. The **first International Air Meet** held in Reims, France, in 1909, demonstrated to the world that the airplane was here to stay.
11. The time period between World War I and World War II was known as the "Golden Age of Aviation."
12. On December 17, 1903, the **Wright brothers** flew the first powered, sustained and controlled heavier-than-air flight at Kitty Hawk, North Carolina.
13. **Louis Breguet** built and flew the first helicopter to lift a man into the air.
14. The Germans used rigid airships as bombers during World War I.

Aerospace: The Flight of Discovery Chapter 5

15. The greatest challenge faced by aviation immediately after World War I was to demonstrate to the non-flying public the capabilities of the airplane.
16. The **Kelly Act** was legislation passed by the US Congress, which authorized the Post Office to contract for airmail service. The McNary-Watres Act was an amendment to the Kelly Act that allowed airmail carriers to be paid according to the weight of the mail they carried.
17. President Woodrow Wilson was responsible for the formation of the **National Advisory Committee for Aeronautics**.
18. The **Pan American Clipper** was the first commercial airplane to cross both the Pacific and Atlantic Oceans.

World War II Era

19. The V-2 rocket was developed and used by the Germans during World War II. Some of the same German scientists who developed the V-2 rocket became the nucleus for US rocketry research after World War II.
20. **Igor Sikorsky** developed the first practical helicopter.
21. Japan's effort to bomb the United States with balloons during World War II was a failure. Only 200 of the balloons landed on US soil killing six people and causing a few grass fires.
22. **Close air support** is a combat function, which provides air attacks against enemy ground forces who are in close contact with friendly forces. Because of the danger of harming friendly forces on the ground, close air support requires detailed coordination between friendly air and ground forces.
23. The **bazooka** was an American weapon designed during World War II for the infantry to destroy tanks.

Cold War Era

24. The Soviet Union was the first country to launch an artificial satellite. The satellite was called **Sputnik**. Explorer 1 was the first American artificial satellite put into space.
25. The **National Aeronautics and Space Administration (NASA)** is a US government organization that was formed to carry out the peaceful exploration of space and to conduct basic aeronautics research.
26. The first commercial jet aircraft in the world was built by the British and was called the **DeHavilland Comet**. The first American commercial jet was the Boeing 707.
27. As a result of the **Berlin Airlift**, the Soviet Union lifted the blockade of West Berlin.

Aerospace: The Flight of Discovery Chapter 5

28. Until the U.S. was able to introduce the **F-86** fighter aircraft into the Korean War, the Russian-built **MIG-15** gave the Chinese pilots the advantage over U.S. aircraft.
29. During the 1950's, the Soviet Union's rocketry program focused on building larger and more powerful missiles.
30. In the mid 1960s, America's land-based Intercontinental Ballistic Missile (ICBM) force consisted of the following missiles: Atlas, Titan, and Minuteman.
31. The Poseidon and Trident missiles are part of the US Navy's Submarine Launched Ballistic Missile (SLBM) system. The Polaris rocket system was phased out in 1983 and replaced by the Poseidon.
32. **Man-High II** was a series of balloon experiments conducted to investigate the near-space environment and its effects on humans in preparation for space flight.
33. The **US Air Force** became a separate military service in 1947.